Addressing Impaired Waters in the North Coast

Presentation to **Board of Forestry's Forest Practice Committee**

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Presentation Outline

- 1. **Regional Water Board's Forestry Program**
- 2. **Impaired Waters**
- Addressing Impaired Waters through
 - **TMDLs**
 - **Permits** b.
 - **Regional Policies**
 - Other Regulatory Mechanisms
- **Effectiveness Monitoring & Assessments** 4.
- **Open Discussion**

North Coast Region

- 12% of state's area
- 40% of state's runoff
- 57% of North Coast is timberland
- 37% of timberlands in state
- Approximately 60% of Region sediment or temperature impaired

Regional Board Timber Program

- Participate in CAL FIRE THP review process
- Permit USFS forestry and related projects
- Independent permitting of THPs
- Provide input to BOF in rule making
- Participate in interagency timber review (1492)
- Participate in monitoring and restoration projects

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Water Quality and Timber Harvest

Regional Water Board Timber Permits

- Required by Porter-Cologne and the Nonpoint Source Policy
- Permits generally rely on, and build upon, existing programs or regulations, such as the FPRs, Aquatic Habitat Conservation Plans, Northwest Forest Plan
- Add additional conditions as necessary to meet water quality requirements

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Regional Water Board Permits

- 1. General Waste Discharge Requirements (WDRs)
- 2. Waiver of Waste Discharge Requirements
- 3. Ownership Permits
 - · Green Diamond Forest Management WDR
 - Green Diamond Roads WDR
 - U.S. Forest Service Nonpoint Source Waiver
- 4. Watershed Permits
 - Elk River, Freshwater Creek, Bear and Jordan Creeks
- 5. Individual WDR or Waiver



What are Impaired Waters?

Waterbodies that do not meet water quality standards.

> Standards = Beneficial Uses + Water Quality Objectives + Implementation Policies

- Listed as impaired on the 303(d) List
- Each listings is known as a "Waterbody-Pollutant Pair"

Waterbodies vs. Watersheds

- Each waterbody has its own geographic extent
- Historical listings were by Hydrologic Areas (HUC 8) or Hydrologic Subareas (HUC 10)
- Re-segmentation is underway to split and refine waterbodies





North Coast Impairments

- Sediment
- Temperature
- Pathogens (indicator bacteria, *E. coli*)
- Biostimulatory Conditions
 Nutrients (nitrogen & phosphorus)
 - Dissolved Oxygen
 - pH
- Microcystin Toxins
- Mercury
- Aluminum
- Dioxins
- PCBs

303(d) List of Impaired Waters

The 2010 303(d) List is the official, statewide list

New Schedule: 2012: North Coast (R1), Lahontan (R6), Colorado River (R7) 2014: Central Coast (R3), Central Valley (R5), San Diego (R9) 2016: San Francisco Bay (R2), Los Angeles (R4), Santa Ana (R8)

The 2012 List is in the approval process RWB adoption - August 2014 SWB hearing – March 3, 2015 EPA consideration - 2015

The 2018 List will start soon

Data solicitation in late 2015

Integ	rated Report Categories	
Category	Description	
1	Evidence shows all core uses are supported.	
2	Evidence shows some core uses are supported.	
3	Evidence is insufficient.	
4a	Evidence shows at least one use is not supported. A TMDL has been developed and approved by the USEPA.	
4b	Evidence shows at least one use is not supported. Existing regulatory program is in place. TMDL is not needed.	303(d)
4c	Evidence shows at least one use is not supported. Impairment caused by non-pollutant sources. TMDL is not needed.	List
5	Evidence shows at least one use is supported. TMDL is needed.	
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		Campbell Cove	Entire voter body	Indicator Easteria	
		Estern Americano NA		Stateback	- 1
	Sedaga NU	Estuary	Entire water body	Sedimentation/ Situation	5
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		Valley RSA	Entire water body	Mission	
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		Milderness HEA & Black Buttle River HSA	Entire water body	Temperature	40
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		Watershed		Temperature	68
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			Siner	Sedimentation/	
		South Fork Ed Siver H.A.	Entire vister body Entire vister body except	Sission	40
			Dutch Charlie Creek and Reduced Creek	Temperature	40
		Upper Main Eel Stiner KA	Entire vister body	Sedimentation/ Distance	40
		(included Tombi Creek)		Temperature	60

How Are Waterbodies Listed or Delisted?

- 1. Obtain data
- 2. Analyze data according to rules of the Listing Policy
- 3. Develop Lines of Evidence
- 4. Make Decision
- 5. Regional Board Consideration
- 6. State Board Consideration
- 7. EPA Approval

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For Questions on the 303(d) List

- http://www.waterboards.ca.gov/ northcoast/water_issues/programs/ tmdls/303d/
- Katharine Carter 707-576-2290 kcarter@waterboards.ca.gov

How do we Address Impairments?

Section 303(d) of the Clean Water Act

- Requires states to ID impaired waters
- Requires states to develop a total maximum daily load (TMDL) or implement another program to meet standards

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Addressing Impaired Waters

- TMDLs
- Prohibitions
- Permits
- Region-wide Policies
- Enforcement Actions
- Inter-Agency Agreements (MOU, MAA)
- Agreements with Non-Agency Entity

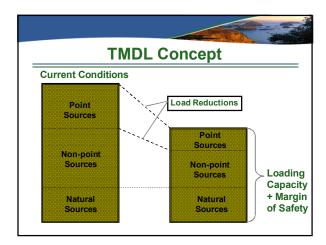
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What is a TMDL?

- Surface Water Clean-up Plan
- The maximum amount of a pollutant that a waterbody can handle and remain healthy

Example TMDL Units

Sediment: tons of sediment per sq. mi. per year
Temperature: potential effective shade
Nutrients: lbs of total phosphorus per day
Pathogens: mg/L of *E.coli*



Technical TMDL Contents

- Problem Statement
- Source Analysis
- Targets
- TMDL calculation
- Load Allocations for each source
- Margin of Safety & Seasonal Considerations

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What about implementation?

- Not required by federal Clean Water Act
- Many TMDLs established under the Consent Decree were not developed with implementation plans
- Several TMDLs have watershed-specific implementation requirements as "TMDL Action Plans" in the Basin Plan
- We are now focused more on implementation than developing new TMDLs

Addressing Impaired Waters

- TMDLs -
- Prohibitions
- TMDL Adoption Options:

 Established by USEPA
- Permits
- Adopted via Basin Plan Amendment Adopted via Single Action
- Adopted via Certification
- Region-wide Policies
- Enforcement Actions
- Inter-Agency Agreements (MOU, MAA)
- Agreements with Non-Agency Entity

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Options for Addressing Impaired Waters

	Technical TMDL	Implementation Plan	Monitoring Plan	CEQA Analysis	State Water Board Approval	USEPA Approval
USEPA Establishment	✓					✓
Basin Plan Amendment	✓	√	✓	Functional Equivalent Process	√	✓
Single Action	√	✓	√	Regular Process		✓
Certification	✓	Use Existing	Use Existing	Use Existing		✓
4b Categorization	Some	Use Existing	Use Existing	Use Existing		✓

Addressing Impaired Waters

- TMDLs
- Prohibitions
- Permits
- Enforcement Actions
- Inter-Agency Agreements (MOU, MAA)
- Agreements with Non-Agency Entity
- Region-wide Policies

Prohibitions

- Part of the Basin Plan in Ch 4: Implementation
- Prohibitions can be conditional

Examples of Prohibitions in R1:

"Discharges of waste that violate any narrative or numerical water quality objective that are not authorized by waste discharge requirements or other order or action by the Regional or State Water Board are prohibited."

"The controllable discharge of soil, silt, \dots into waters of the state within the Garcia River watershed is prohibited."

The prohibition does not apply to landowners managing their land in accordance with an approved Erosion Control Plan and Management Plan.

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Permits

- Waste Discharge Requirements
- Waivers of Waste Discharge Requirements
- NPDES Permits

(e.g., stormwater, wastewater, Caltrans)

Examples of Existing Nonpoint Source Permits in R1:

- General WDRs & Waiver Discharges related to Timber Harvesting on Non-Federal Lands
- Waiver Nonpoint Source Discharges on National Forests
- WDRs Discharges Related to Road Management for Green Diamond Resource Co
- Waiver Discharges Related to Road Management on County Roads
- Waivers Discharges from TMDL Implementation in the Scott & Shasta R Watersheds
- General WDRs & Waiver Discharges from Cow Dairies

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Enforcement Actions

- Cleanup and Abatement Orders
- Administrative Civil Liabilities (fines)

Inter-Agency Agreements

- Memoranda of Understanding
- Management Agency Agreements

Region-wide Policies

- Used to address one or more activities or pollutants across multiple watersheds
- Sediment TMDL Implementation Policy
 - Directs staff to use all available authorities to pursue compliance with sediment WQ Objectives
 - · Includes familiar sediment control process

 $\mathsf{Inventory} \to \mathsf{Prioritize} \to \mathsf{Schedule} \to \mathsf{Control/Fix} \to \mathsf{Monitor} \to \mathsf{Adapt}$

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Region-wide Policies

Temperature Policy

- Also directs staff to use available authorities
- States that controllable water quality factors affecting temperature include:
 - Anthropogenic activities which results in the removal of riparian vegetation that provides shade to a waterbody
 - · Sediment discharges
 - · Impoundments and other channel alterations
 - · Reductions of instream summer flows
 - · Reductions of cold water sources



Next Steps

- 1. Continue sediment control, riparian protection, and instream restoration efforts
- 2. Track & Assess Our Effectiveness
 - Are WLPZ operations keeping shade over streams and filtering sediment?
 - Are hillslope measures reducing sediment discharges?

 - Are our TMDLs working?Are instream conditions changing?

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Thank You

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